



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/615,260	07/08/2003	Paul Boudreaux	15499RRUS02U	8145
7590 Garlick Harrison & Markison P.O. Box 160727 Austin, TX 78716-0727			EXAMINER WONG, BLANCHE	
			ART UNIT 2619	PAPER NUMBER
			MAIL DATE 01/11/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/615,260

Applicant(s)

BOUDREAUX ET AL.

Examiner

Blanche Wong

Art Unit

2619

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 October 2007.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 July 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.
2. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).
3. With regard to claim 10, the preamble recites a method for transferring call control to a backup call server. However, the body of the claim does not depend on any call control or a backup call server.

Drawings

4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: Reference number 94 in Fig. 2. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version

of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

5. Claims 1-20 are objected to because of the following informalities: Abbreviations such as MSC,G-MSC,HLR,BSC,etc. should be spelled out when used for the first time, especially in independent claims 1,10,13,14,19. Appropriate correction is required.
6. Claim 2 is objected to because of the following informalities: Examiner suggests replacing "the backup server" in lines 2-3 with "the backup call server" in consistent with the "backup call server" in claim 1, line 1 and 5. Appropriate correction is required.
7. Claim 4 is objected to because of the following informalities: Examiner suggests replacing "each distribute" in line 1 with "each distributes". Appropriate correction is required.
8. Claim 10 is objected to because of the following informalities: Examiner suggests replacing "a connection" in lines 11 and 14 with "a call connection" for clarity and in consistent with "a call connection" in line 16. Appropriate correction is required.
9. Claim 13 is objected to because of the following informalities: Examiner suggests replacing "the at least one signaling gateway coupled between the HLR and

the G-MSC" in lines 7-8 with "the at least one signaling gateway" for simplicity and clarity and in consistent with "at least one signaling gateway coupled between G-MSC and the HLR" in line 4. Appropriate correction is required.

10. Claim 14 is objected to because of the following informalities: Examiner suggests replacing "the second gateway coupled between the HLR and the G-MSC" in lines 9-10 with "the second signaling gateway" for simplicity and clarity and in consistent with "a second signaling gateway [within the first plurality of signaling gateways] coupled between the G-MSC and the HLR" in line 6. Appropriate correction is required.

11. Claim 19 is objected to because of the following informalities: Examiner suggests replacing "the backup switching element" in line 10 with "the first backup switching element" in consistent with "a first backup switching element" in lines 8-9. Appropriate correction is required.

Claim Rejections - 35 USC § 112

12. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

13. **Claims 10,11,14,20** are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

14. With regard to claim 10, it is unclear which element is performing the step of "determining that the destination MSC has failed" in line 10 and/or "determining that the G-MSC has failed" in line 13, and thus how this is process-enabled or structurally enabled.

15. With regard to claim 10, it is unclear how the call connection is established between the calling party mobile station and a called party mobile station (lines 16-17) using the destination MSC information (line 8).

16. With regard to claims 11 and 14, the backup MSC becomes a first and second backup MSC and/or the G-MSC becomes a first and second backup G-MSC. It is unclear how this is process-enabled or structurally enabled.

17. With regard to claim 20, "transparently forwarding the call signaling messages to the first backup switching element" in claim 19, line 10, becomes "transparently forwarding a first group of call signaling messages to the first backup switching element and transparently forwarding a second group of call signaling messages to the second backup switching element" in claim 20, lines 2-4. It is unclear how this is process-enabled or structurally enabled.

18. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

19. **Claims 1-12,14-20** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

20. With regard to claim 1, it is unclear whether there is more than one signaling gateway because "a signaling gateway" in line 5 references one signaling gateway whereas "each signaling gateway" in line 5 implies more than one signaling gateway.

21. With regard to claim 5, it is unclear from where is the "transitioned to the active state" in line 2, or is it "transitioned from the inactive state to the active state".

22. With regard to claim 5, it is unclear what is "signaling" in line 2, or is it the same as the "signaling messages" in claim 1, line 4.

23. With regard to claim 5, it is unclear from where is the "forwarding signaling [messages] to the primary call server" in line 2, or is it "forwarding signaling messages from the backup call server to the primary call server" in consistent with "forwarding signaling messages from a signaling gateway to a backup call server" in claim 1, lines 4-5.

24. With regard to claim 6, it is unclear what are "all signaling messages" in lines 1-2.

25. With regard to claim 10, it is unclear whether "the call setup signals received *from* the G-MSC" (with emphasis) is the same as the call setup signals transmitted from the G-MSC to an HLR in line 6.

26. With regard to claim 11, it is unclear whether "the backup MSC" in line 2 is one or two MSC because there are "a first backup MSC" in line 3 and "a second backup MSC" in line 4.

27. With regard to claim 12, it is unclear whether "the G-MSC" in lines 1-2 is one or two G-MSC because there are "a first backup G-MSC" in line 3 and "a second backup G-MSC" in line 3.

28. With regard to claim 14, it is unclear whether the "originating MSCs" and "destination MSCs" in line 2 are part of "a plurality of MSCs" in line 5.
29. With regard to claim 14, it is unclear whether the "second signaling gateway" in line 6 is also "within [the] first plurality of signaling gateways" in line 4 or within a second plurality of signaling gateways.
30. With regard to claim 14, it is unclear what is meant by "reports a destination MSC" in line 7, or whether it means "reports to a destination MSC".
31. With regard to claim 14, it is unclear that the first and second signaling gateway are transmitting any call signaling messages in order to redirect them in lines 11-14.
32. With regard to claim 15, it is unclear whether the G-MSC is one or two G-MSC because there are "a first backup G-MSC" in lines 11-12 and "a second backup G-MSC" in lines 13-14.
33. With regard to claim 15, it is unclear whether "a plurality of signaling gateways" in line 2 is the same as "a first plurality of signaling gateways" in claim 14, line 4.
34. With regard to claim 16, it is unclear whether "an originating MSC" is one of the same as "originating MSCs" in claim 14, line 2.
35. With regard to claim 16, it is unclear whether "a destination MSC" is one of the same as "destination MSCs" in claim 14, line 2.
36. There is insufficient antecedent basis for this limitation in the claim.
- Claim 4, lines 1-2, "each distribute signaling messages".
- Claims 6 and 7, both in line 2, "transitioning to the inactive state".

Claim 10, lines 13-14, "the call setup signals received for the G-MSC".

Claim 19, line 6, "the HLR".

Claim Rejections - 35 USC § 102

37. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

38. **Claims 1,3,4,9 and 19** are rejected under 35 U.S.C. 102(e) as being anticipated by Tester et al. (U.S. Pat No. 7,286,545).

39. With regard to claim 1, Tester discloses

monitoring a primary call server (**call server B**) to determine an active or inactive state (**fails**) of said primary call server (**call server B**) (**when call server B fails, col. 5, line 51**); and

upon receipt of an inactive state for said primary call server (**upon failure**), forwarding signaling messages from a signaling gateway (**gateway controller C**) to a backup call server (**call server C**) wherein each signaling gateway may have a different backup call server (**upon failure, gateway controller C is reallocated to call server C, col. 5, lines 55-56**).

40. With regard to claim 3, Tester further discloses mapping a new destination address from the signaling gateway to the backup call server (**allow for the specification of a selected gateway controller, col. 6, line 31**).

41. With regard to claim 4, Tester further discloses a plurality of signaling gateways (**see multiple gateway controllers in Fig. 1 or 2**) each distributes signaling messages destined for the primary call server (**see multiple call servers in Fig. 1 or 2**) to a plurality of backup call servers.

42. With regard to claim 9, Tester further discloses the primary call server also functions as a backup call server and the backup call server also functions as a primary call server (**e.g. when call server B fails, call server C is backup, col. 5, lines 55-56; when call server C fails, call server B can be the backup**).

43. With regard to claim 19, Tester discloses
a processor (**CPU, col. 8, line 45**);
a memory (**memory, col. 8, line 45**) for storing computer instructions (**software, col. 8, line 45**) that define the operational logic (**establish rules and logic for operation, col. 8, line 55**) of the signaling gateway (**gateway controllers in Fig. 1 or 2**), wherein the computer instructions include logic for:

receiving call signaling messages from one of the HLR or an initiating MSC (**media gateways in Fig. 1 or 2**);

determining whether the destination switching element (**gateway controller or call server**) is in an inactive state (**fails**) (**when a gateway controller or call server fails, col. 8, lines 62-63**);

if the destination switching element is in an inactive state (**fails**), determining a first backup (**reconfiguration and provisioning**) switching element (**backup gateway controller or call server**) (**support dynamic reconfiguration and provisioning when a gateway controller or call server fails, col. 8, lines 61-63**); and

transparently (**automatically, col. 8, line 61**) forwarding the call signaling messages to the first backup switching element (**backup gateway controller or call server**).

Claim Rejections - 35 USC § 103

44. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

45. **Claim 5** is rejected under 35 U.S.C. 103(a) as being unpatentable over Tester.

46. With regard to claim 5, Tester discloses the method of claim 1. Tester fails to disclose determining the primary call server has transitioned from inactive state to the active state and subsequently thereto, forwarding signaling messages from the backup call server to the primary call server. However, official notice is taken that this limitation is well-known because a backup is only temporary and when the original element becomes active again, whether resumes from failure, the original processes continues via the original element. At the time to the invention, it would have been obvious to a person of ordinary skill in the art to combine determining the primary call server has transitioned from inactive state to the active state and subsequently thereto, forwarding

signaling messages from the backup call server to the primary call server, with Tester, for the benefit of having a backup.

47. **Claim 8** is rejected under 35 U.S.C. 103(a) as being unpatentable over Tester in view of Karaul et al. (Pub No. US 2002/0024943).

48. With regard to claim 8, Tester discloses the method of claim 1. Tester fails to disclose MSC. Karaul discloses media gateways that are MSCs (para. [0023]). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine MSC as taught in Karaul with Tester to provide for wireless communication.

49. **Claim 13** is rejected under 35 U.S.C. 103(a) as being unpatentable over Stumpert (U.S. Pat No. 6,947,747) in view of Davidson et al. (U.S. Pat No. 6,408,182).

50. With regard to claim 13, Stumpert discloses

a G-MSC (**GMSC1 in Fig. 1**) for establishing call connections between originating MSCs (**MSC 1 in Fig. 1**) and destination MSCs (**MSC 2 in Fig. 1**);

a HLR (**HLR in Fig. 1**) for providing location information to the G-MSC (**GMSC1**) as part of the call setup;

wherein the HLR determines a primary MSC to serve as a destination MSC for a call being setup based upon a called party mobile station location (**see MSC addr in HLR in Fig. 1**);

wherein the HLR transmits call signaling messages (**see arrow 16 in Fig. 1**) to the at least one signaling gateway (**SigGW 1 in Fig. 1**); and

Stumpert does not disclose a backup G-MSC upon detecting that the G-MSC is in an inactive state.

Davidson discloses a backup MSC that is connected to the HLR (**see two MSCs to HLR in Fig. 2**).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine a backup G-MSC to provide for failover operation. Davidson, col. 1, line 45.

Allowable Subject Matter

51. Claims 10 and 14 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

52. Claims 2,6,7,11,12,15-18,20 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

53. The following is a statement of reasons for the indication of allowable subject matter:

54. With regard to claim 2, the prior art of record fails to anticipate or make obvious "encapsulating the signaling message in a data packet with the destination address of the backup call server". Filsfils et al. (Pub No. US 2007/0091794) discloses encapsulating with destination address. However, the effective filing date of Filsfils is October 20, 2005.

Conclusion

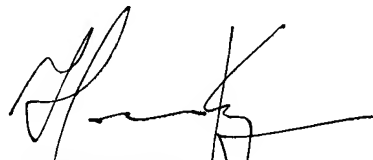
55. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Blanche Wong whose telephone number is 571-272-3177. The examiner can normally be reached on Monday through Friday, 830am to 530pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edan Orgad can be reached on 571-272-7884. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

BW

BW
January 2, 2007


HASSAN KIZOU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600